

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-32. (cancelled)

33. (new) An isolated protein that comprises or is constituted by the amino acid sequence of SEQ ID NO: 1.

34. (new) The isolated protein of claim 33, wherein said protein comprises or is constituted by the amino acid sequence of SEQ ID NO: 2 or SEQ ID NO: 3.

35. (new) An isolated nucleotide sequence encoding the protein that comprises or is constituted by the amino acid sequence of SEQ ID NO: 1.

36. (new) A recombinant vector comprising a nucleotide sequence encoding the isolated protein as defined in claim 33.

37. (new) The recombinant vector according to claim 36, wherein said recombinant vector is a plasmid, a cosmid, a phage, or a virus DNA.

38. (new) The recombinant vector according to claim 36, comprising operable elements for expression in a host cell of the isolated protein encoded by the nucleotide sequence, inserted into a vector.

39. (new) A host cell transformed with a recombinant vector containing a nucleotide sequence encoding the isolated protein as defined in claim 33.

40. (new) The host cell according to claim 39, said host cell being chosen from bacteria, yeast, fungi, plant cells, or mammalian cells.

41. (new) A pharmaceutical composition comprising, as active ingredient, the isolated protein according to claim 33, in combination with a pharmaceutically acceptable vehicle.

42. (new) A pharmaceutical composition, comprising as active ingredient, a protein represented by the amino acid sequence of SEQ ID NO: 2 or SEQ ID NO: 3, in combination with a pharmaceutically acceptable vehicle.

43. (new) The pharmaceutical composition according to claim 41, in which the isolated protein, is in combination

with a variant of the paraoxonase protein comprising the amino acid sequence selected from the group consisting of: SEQ ID NO: 4, SEQ ID NO: 5, and SEQ ID NO: 6.

44. (new) The pharmaceutical composition according to claim 43, wherein the isolated protein is the isolated protein of SEQ ID NO 2 or SEQ ID NO 3.

45. (new) A combination product comprising:
at least the isolated protein according to claim 33,
and

at least one variant of the paraoxonase protein consisting of the amino acid sequence selected from the group consisting of: SEQ ID NO: 4 of SEQ ID NO: 5, and SEQ ID NO: 6,

for simultaneous or separate use, or use spread over time, intended for the prophylaxis or treatment of intoxications caused by insecticides or nerve agents.

46. (new) The combination product according to claim 45, wherein said isolated protein is the isolated protein of SEQ ID NO 2 or SEQ ID NO 3.

47. (new) The combination product according to claim 45, wherein said nerve agents are soman, VX, sarin, or tabun.

48. (new) A method for determining in human plasma the concentration of the isolated protein according to claim 33, said method comprises the following stages:

- fixing rabbit monoclonal antibodies directed against different epitopes of the isolated protein according to claim 33, to a plate, and applying human serum to be analyzed containing said protein to the plate,
- rinsing and washing the plate,
- applying antibodies directed against rabbit antibodies (anti-IGrabbit-per) marked with peroxidase to the plate for over 30 minutes, in order to form a ternary complex between a rabbit monoclonal antibody, the isolated protein and said antibody directed against a rabbit antibody (anti-HPB - HPB - anti-IGrabbit-per),
- rinsing and washing the plate,
- reacting the peroxidase with a substrate and then stopping the reaction at the end of 30 minutes with 3,3',5,5'-tetramethylbenzidine,
- measuring the optical density of the product formed in the preceding stage at 450 nm using a spectrophotometer, and comparing with a standard curve,
- determining the concentration of the isolated protein according to claim 33 from the preceding stage.

49. (new) The method according to claim 48, wherein said isolated protein is the isolated protein of SEQ ID NO 2 or SEQ ID NO 3.

50. (new) The method according to claim 48, which is useful for *in vitro* diagnosis of a disease linked to hyperphosphataemia, wherein when the concentration of the isolated protein of SEQ ID NO: 2 or SEQ ID NO: 3 as assayed is less than the quantity of the protein normally present in the blood of a healthy individual, it correlates to an *in vitro* diagnosis of a disease linked to hyperphosphataemia.

51. (new) The method according to claim 48, which is useful for *in vitro* diagnosis of a disease linked to hypophosphataemia, wherein when the concentration of the protein of SEQ ID NO: 2 or SEQ ID NO: 3 as assayed is greater than the quantity of the protein normally present in the blood of a healthy individual, it correlates to an *in vitro* diagnosis of a disease linked to hypophosphataemia.

52. (new) The method according to claim 48, which is useful for *in vitro* diagnosis of an individual's predisposition to a disease linked to hyperphosphataemia or to hypophosphataemia.

53. (new) The method of claim 52, wherein the disease linked to hyperphosphataemia is cardiovascular disease.

54. (new) The method according to claim 53, wherein said cardiovascular disease is linked to the formation of atheroma plaque.